



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,246	03/29/2004	Takashi Hirakawa	SON-1659/CON	9013
23353 7590 02/20/2008 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			EXAMINER LAO, LUN YI	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 02/20/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/811,246

Applicant(s)

HIRAKAWA ET AL.

Examiner

LUN-YI LAO

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11/19/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/417,714.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/29/2007.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muraji et al(5,260,797) in view of Matsuo et al(4,319,237).

As to claim 1, Muraji et al teach a liquid crystal display apparatus comprising a liquid crystal display panel(3, 59, 60, 61)(see figures 1, 3, 5, 6, 8 and column 3, lines 29-39); a chrominance(R, G, B) non-uniformity correction circuit(69, 70 or 9, 10) adapted to generate a correction signal for eliminating chrominance non-uniformity; a common voltage circuit(32 or 93, 96, 101) for a common voltage(see figures 3, 5, 6, 8; abstract; column 2; lines 32-45; column 5, lines 17-43; column 6, lines 15-68 and column 7, lines 1-47) and a display panel(59, 60, 61) for receiving the common voltage and a primary color video signal(R, G, B), a difference between the common voltage applied to a common electrode(43) and the primary color video signal applied to drain of a transistor(41) being applied to the display panel(liquid crystal cell 42)(see figures 3, 5, 6, 8; column 4, lines 57-68 and column 5, lines 1-16).

Muraji et al fail to disclose a common voltage adjustment circuit.

Matsuo et al teach a common voltage adjustment circuit(35-38, 51-53) for adjusting a common voltage applied to a common electrode(8)(see figures 8, 12; column 5, lines 19-24; column 6, lines 15-66 and column 7, lines 3-25). It would have been obvious to have modified Muraji et al with the teaching of Matsuo et al, so as to provide a picture with desired picture quality without any additional requirement for the video processing circuit(see column 6, lines 64-67)

As to claim 13, Muraji et al teach primary color video signal is one of a red video signal, a green video signal, and a blue video signal(see figures 6, 8 and column 6, lines 15-21).

As to claim 14, Muraji et al teaches an LCD projector comprising a chrominance non-uniformity correction circuit(69) for superimposed correction signals to the primary color signal(R. G. B)(see figures 3, 8; column 5, lines 16-50 and column 7, lines 1-62).

As to claims 12 and 15, Muraji et al teach a brightness adjustment circuit(71, 45) is adapted to adjust a brightness(the brightness of display signal is corresponding a voltage level or pulse width of a video signal) of the primary color video signal(R. G. B) in response to the chrominance non-uniformity correction signal(see figures 5, 6, 8; column 5, lines 9-13 and column 7, lines 28-51).

3. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muraji et al in view of Matsuo et al and Song(5,831,709).

As to claim 16, Muraji et al fail to apply a correction voltage added to a common voltage.

Song teaches an LCD display for adding a correction voltage(a compensating voltage) to a common voltage(see figures 1 4a; column 1, lines 39-50 and column 5, lines 30-68 and column 6, lines 1-3). It would have been obvious to have modified Muraji et al with the teaching of Song, since to compensate a common voltage is more simple than to compensate a video voltage.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 11-16 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argues the cited prior art does not teach a display panel adapted to receive a common voltage and a primary color video signal, a difference between the common voltage and the primary color vide signal being applied to the display panel on page 5. The examiner disagrees with that since a display panel(59, 60, 61) for receiving the common voltage and a primary color video signal(R, G, B), a difference between the common voltage applied to a common electrode(43) and the primary color video signal applied to drain of a transistor(41) being applied to the display panel(liquid crystal cell 42))(see figures 3, 5, 6, 8; column 4, lines 57-68 and column 5, lines 1-16).

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yanagi et al(5,929,847) teach an LCD display having gray scale voltage generating circuit(420) and common electrode device circuit(500).

Yasui et al(5,831,605) teach an LCD display having a common voltage adjusting circuit.

Kawaguchi et al(6,118,421) teaches gray scale voltage generator for providing a common voltage.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

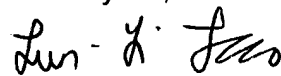
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi Lao whose telephone number is 571-272-7671. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 17, 2008



Lun-yi Lao  
**Primary Examiner**

Application/Control Number:  
10/811,246  
Art Unit: 2629

Page 7